HLDI automobile size and class definitions

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Highlights

This HLDI document contains the size and class definitions for passenger cars, pickups, SUVs and vans.

▶ Vehicle size and class

Passenger cars

Passenger cars are grouped in six classes: regular two-door models, regular four-door models, station wagons, mini-vans, sports models, and luxury models. Station wagons typically have four doors, a rear hatch and four pillars, and are almost exclusively variants of a four-door vehicle. Minivans have the physical characteristics of vans but are typically offered only in a single variant. Minivans are designed to best meet the transportation needs of the consumer, which is typically a family. Sports models include, but are not limited to, two-seaters and cars with significant high-performance features. Luxury models include, but are not limited to, relatively expensive cars not classified as sports models. (For the 2010 model year and forward, the luxury threshold guideline is a price-to-curb-weight ratio exceeding 9.0).

Passenger cars are divided into six size categories based on vehicle shadow (overall length times width) and curb weight, as shown in the diagram. For example, the 2006 Ford Fusion four-door has a shadow of 95.4 square feet (overall length of 190.2 inches times width of 72.2 inches divided by 144) and a curb weight of 3,101 pounds, so it is categorized as midsize.

Passenger car sizes
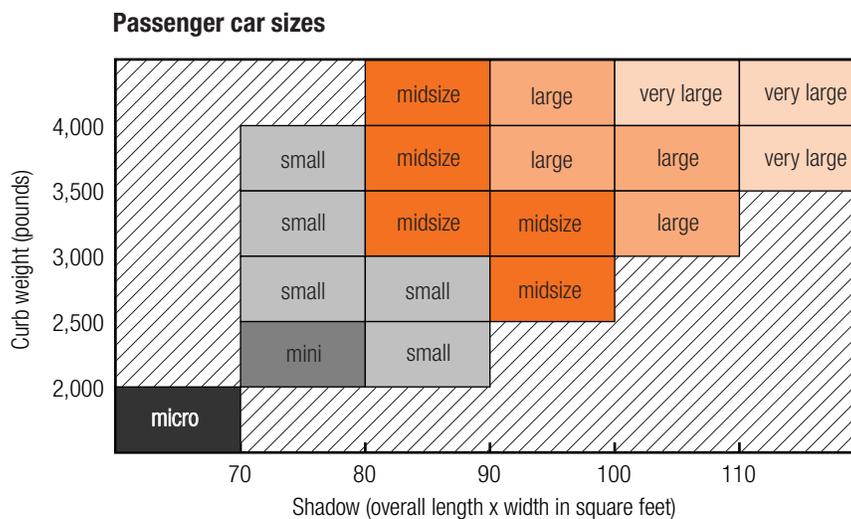
There are some exceptions. Some vehicles are placed in different size categories than their shadows and curb weights would indicate to better group the vehicles with their market class competitors. Vehicles that do not fall into a defined category are handled on a case-by-case basis. Vehicles with curb weights or shadows equal to size classification threshold values are classified in the smaller size category. For example, if a vehicle has a shadow of 100 square feet and a curb weight of 3,500 pounds, then it is categorized as midsize.

Pickups

Pickups are cargo-carrying vehicles, usually on a truck chassis, with an enclosed cab and a separate open cargo area. The open cargo area generally is a box with an open top and a tailgate that opens. Pickups are divided into three size classes based on curb weight and carrying capacity. When different models (i.e., two-wheel drive, four-wheel drive) of the same vehicle series span size groups, all the models may be categorized into the same size regardless of their weights. Vehicles also may be placed in different sizes than their weights would indicate to better group the vehicles with their market class competitors.

- Small—curb weight 4,000 pounds or less (e.g., Ford Ranger)
- Large—curb weight more than 4,000 pounds and carrying capacity of 1/2 ton (e.g., Ford F-150)
- Very Large—curb weight more than 4,000 pounds and carrying capacity of 3/4 or 1 ton (e.g., Ford F-250)

SUVs

SUVs typically are built on heavy-duty chassis capable of off-road use, although many new generation utility vehicles are built on passenger car platforms. They are of conventional front-engine construction. The passenger areas, and the great majority of cargo areas, are integral with the driver area. However, some SUVs have an external cargo bed. Some SUVs are equipped with soft or removeable tops. Frequently, these vehicles are equipped with four-wheel drive.

SUVs are divided into five size categories. The smallest and largest categories (Mini and Very Large) are based on curb weight and vehicle shadow. The other three categories are based simply on curb weight. The categories are further divided into regular and luxury, where luxury contains the higher priced vehicles. (For 2010 models, the luxury threshold guideline is a price-to-curb-weight ratio exceeding 8.0). When different models (i.e., two-wheel drive, four-wheel drive) of the same vehicle series span size groups, all the models may be categorized into the same size regardless of their weights. Vehicles also may be placed in a different size than their weights would indicate to better group the vehicles with their market class competitors.

- Mini—curb weight 3,000 pounds or less and a shadow less than 75 square feet
- Small—curb weight between 3,001 and 3,750 pounds
- Midsize—curb weight between 3,751 and 4,750 pounds
- Large—curb weight between 4,751 and 5,750 pounds
- Very Large—curb weight more than 5,751 pounds or a shadow more than 115 square feet

Vans

Vans are fully enclosed vehicles with either no hood or a very short hood. The engine is at least 50 percent behind the windshield and the driver's position is well forward. While the cargo and passenger area both are enclosed under the same roof (like station wagons) the cargo area floor of a van is undivided from the passenger area floor (unlike station wagons).

Vans are typically offered in multiple variants (cargo, LWB, 4WD, tall, increased capacity) designed to best meet the transportation needs of the consumer, which is typically not a family.

Vans are divided into size categories based on vehicle shadow (overall length times width) and curb weight, as shown in the diagram. For example, the 2012 Ford E-150 has a shadow of 111.6 square feet (overall length of 202.9 inches multiplied by width of 79.2 inches divided by 144) and a curb weight of 4,337 pounds, so it is sized as large.

Van sizes
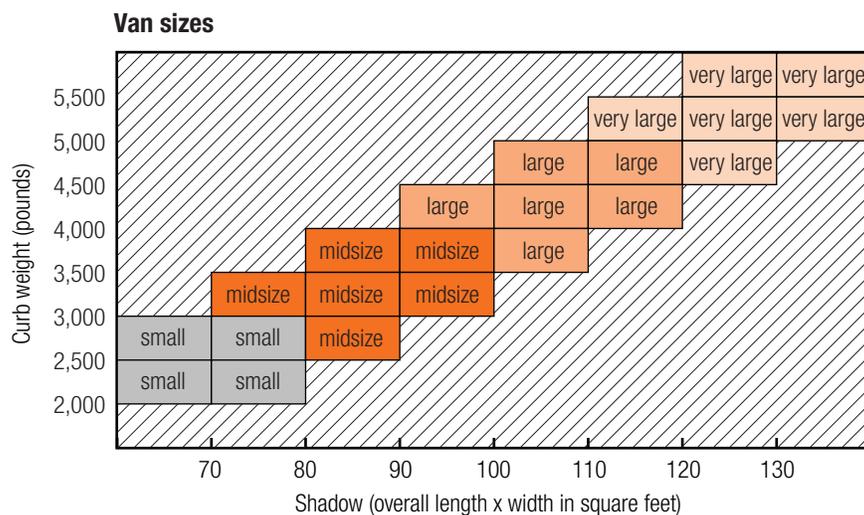
HLDI VehicleClassID

HLDI VehicleClassID is used to group vehicles of similar design and purpose into categories for more accurate comparison. The parameters of a given class vary based on the nature of a given class.

VehicleClassId	VehicleClassName
1	2 Door
2	4 Door
3	Luxury
4	Sports
5	Minivan
6	Pickup
8	SUV
9	Van
10	Unknown
11	Station Wagon
12	Specialty Car
13	Specialty Truck
14	Luxury SUV

HLDI VehicleSizeID

HLDI VehicleSizeID is used to group similarly sized vehicles of the same class into categories for more accurate comparison. The parameters of a given size vary from class to class based on the sizing schema of a given class.

VehicleSizeId	VehicleSizeName
1	Mini
2	Small
3	Midsize
4	Large
5	Very Large
6	Unknown
7	Standard
0	Micro

HLDI

Highway Loss Data Institute